



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

[Handwritten signature]

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/774,877	02/01/2001	Kaushal Shastri	Q62891	3162

7590 03/18/2004

SUGHRUE, MION, ZINN,
MACPEAK & SEAS, PLLC
2100 PENNSYLVANIA AVENUE, N.W.
WASHINGTON, DC 20037-3213

EXAMINER

FOULADI SEMNANI, FARANAK

ART UNIT	PAPER NUMBER
----------	--------------

2672

DATE MAILED: 03/18/2004

[Handwritten marks]

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/774,877

Applicant(s)

SHASTRI ET AL.

Examiner

Faranak Fouladi

Art Unit

2672

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Amendment C, filed 2/27/04.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☒ Claim(s) 1 and 2 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. This action is responsive to communications: application, filed on 02/01/01; Amendment A, filed on 5/27/03, RCE and amendment C, filed on 2/27/04.
2. Claims 1-21 are pending in the case, with claims 1, 5 and 9 being independent.
3. The present title of the application is "Image display Method, Apparatus and Storage Medium" (as originally filed).

Specification

4. The disclosure is objected to because of the following informalities: In specification page 5 line 25 "display protocol" and "multiple protocol" are inconsistent with line 23-24 that reads "for cases in which there are multiple display protocol sequences". They should be changed to "display protocol sequence" and "multiple display protocol sequences".
Appropriate correction is required.

Claim Objections

5. Claim 1 is objected to because of the following informalities:
"in which a plurality of display protocols" in line 4, "a plurality of images" in line 5, and "a plurality of images" in line 6 of amended claim are inconsistent.
Appropriate correction is required.
6. Claim 2 is objected to because of the following informalities: original claim 2 does not include "therein" in line 1.
Appropriate correction is required.

Claim Rejections - 35 USC § 102



The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1-21 are rejected under 35 U.S.C. 102(b) as being anticipated by Hilton et al. US. 5,452,416.

8. Regarding independent claim 1, "An image display method for displaying a plurality of images on a display means, wherein; based on at least one display protocol sequence that defines an execution order of a plurality of display protocols for the plurality of images, in which a plurality of display protocols that define a display layout of a plurality of images are lined up in a predetermined order, the display layout of a plurality of images is switched by switching said display protocols by the predetermined order defined in the display protocol sequence and said plurality of images are displayed on said display means using the switched display protocol."

Hilton suggests that the plurality of images is an image series for example an axial T2 series including 18 images for display.

In specification page 5 lines 14-19 "display protocol sequence" is defined as, "The expression "display protocol sequence" refers to an array of display protocols lined up in a predetermined order. Note that the display protocols in a display protocol sequence are lined up in an order according to the examination, the series, the examining doctor or the group of doctors the examining doctor belongs to, etc."

Hilton disclose in col.8 line 24 – 30 and in Fig. 6 “examination protocols” that “provide for identification of the patient, and set out the number and types of sequences”. This has been interpreted as “display protocol sequence”.

“Display protocol” is also defined in specification page 4 lines line 16 – 20 page 5 line 13 as, “The expression “display protocol” refers the protocol which defines image layout, image display conditions, image processing conditions, etc., based on an examination, a series, the examining doctor or group of doctors, the place an image will be used and/or the purpose of the image, etc.”

Hilton disclose in col.8 line 30 – col. 9 line 43 and in Fig. 6 plurality of display protocols that define a display layouts (Hilton disclose display layout as “mode”) and are lined up in a predetermined order.

Applicant admits in specification page 3 lines 5-9 that Hilton disclose switching the display layout of a plurality of images. Specification page 3 lines 5-9 states “a method has been provide wherein each series (by type of examination) of images obtained in an examination employing MRI apparatus is lined up and displayed, and at the same time one series of images is switched, another series of images is also switched (refer to U.S. Pat. No. 5,452,416).”

9. Regarding dependent claim 2, “...therein; for cases in which there are multiple display protocol sequences, the desired display protocol sequence can be selected, and based on the selected display protocol sequence, said plurality of images are displayed on the display means.” Hilton et al. discloses in col. 9 lines 1-11.

10. Regarding dependent claim 3, "...wherein; said plurality of display protocol sequences can be switched, and based on the display protocol sequence switched to, said plurality of images are displayed on the displayed means." Hilton et al. disclose in col. 7 lines 16-34 and also applicant discloses this in description of the related art section page 3 lines 5- 9.
11. Regarding dependent claim 4, "...wherein; the display protocol sequences are created based on the predetermined conditions, and based on said created display protocol sequence, said plurality of images are displayed on the display means." Hilton et al. disclose in col. 8 lines 24-68.
12. Regarding dependent claim 13, "...wherein said at least one display protocol sequence includes at least two of the plurality of display protocols to be arranged in a predetermined temporal order, said at least two of the plurality of display protocols each individually comprising a predetermined spatially ordered arrangement of images selected from said plurality of images." Hilton et al. disclose in col. 8 lines 24 – col. 9 line 43.
13. Regarding dependent claim 16, "...wherein said display protocol sequence includes at least two of the plurality of display protocols to be arranged in a predetermined temporal order and wherein the display protocol sequence can be switched to a different display protocol sequence prior to reaching a last display

Art Unit: 2672

protocol of the protocol sequence." Hilton et al. disclose in col. 10 lines 3-68, Fig.

3 and Fig.4.

14. Claim 19 is similar in scope to claim 16 and therefore rejected under the same rationale.

15. Claims 5-8, 14, 17 and 20 recite apparatus for performing the method of claims 1-4, 13, 16 and 19; therefore they are similar in scope and rejected under the same rationale.

16. Claims 9-12, 15, 18 and 21 are rejected based on inherent disclosure in Hilton reference.

Claims 9-12, 15, 18 and 21 recite a computer-readable medium storing a program for executing the method of claims 1-4, 13, 16 and 19. Having a medium configured to store or transport computer readable code in a computer system is inherent. For example compact disc has been included and used in the computer systems since 1990s or magnetic data storage devices have been used since 1980s.

Response to Arguments

17. Applicant's arguments filed 2/27/04 have been fully considered but they are not persuasive.

Applicant argues on page 20 of the amendment in third paragraph "the "sequence" disclosed by the device of Hilton is a sequence for defining the order in which a plurality of images are displayed in the same position in Hilton's display container. In contradistinction, the present invention discloses a sequence in which the plurality of display protocols are executed (wherein the images displayed in the image sequence are not displayed in the same position throughout the sequence because the sequence defines an execution order of a plurality of display protocols for the plurality of images). Thus, a physician using the instant invention would not have the burden of arbitrarily reviewing protocols without a methodical order that is predetermined, as would a physician using the device of Hilton."

Amended independent claim 1 and 5 of the application do not recite "wherein the images displayed in the image sequence are not displayed in the same position throughout the sequence because the sequence defines an execution order of a plurality of display protocols for the plurality of images". Independent Claim 1 disclose "display protocol sequence that defines an execution order of a plurality of display protocols for the plurality of images" Hilton disclose in his invention a display protocol sequence in which a plurality of display protocols (MODE, MATRIX, COUPLE, SHRINK, EXPAND) are executed (col. 8 line 24 – col. 9 line 43).

Conclusion

18. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See PTO-892 form.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Faranak Fouladi** whose telephone number is

703-305-3223. The examiner can normally be reached on Mon-Fri from 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Michael Razavi** can be reach at **703-305-4713**.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, DC. 20231

Or faxed to: 703-872-9306 (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, sixth-floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is 703-306-0377.

Faranak Fouladi-Semnani
Patent Examiner
Art Unit 2672



MICHAEL RAZAVI
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600